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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,898	12/17/2003	Arne Simonsson	4147-57	4042

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EXAMINER	
NGUYEN, TU X	

ART UNIT	PAPER NUMBER
2618	

DATE MAILED: 12/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/736,898	SIMONSSON ET AL.	
	Examiner	Art Unit	
	Tu X. Nguyen	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/14/05,5/5/05,5/20/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 5/20/04, 4/14/05 and 5/05/05 were being considered by the examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 7-29 and 31-37, are rejected under 35 U.S.C. 102(e) as being anticipated by Laakso (US Patent 6,671,512).

Regarding claim 1, Laakso discloses a method for power control in a communication system including a transceiver node capable of communicating with multiple mobile terminals, comprising the steps of:

receiving, at the transceiver node (see col.3 lines 44-45), a transmitter power change request from one of the mobile terminals over a wireless connection (see col.2 lines 24-25, Laakso teaches uplink TPC command is a request power change at the base station);

determining a power control parameter for the connection at the network side (see col.10 lines 16-34, "non-real time users", "real-time users" corresponds to "power control

parameter for the connection") based on connection-specific information indicating the degree of priority associated with the connection (see col.14 lines 15-42, Laakso teaches the base station distributes different power step sizes based on degree of priority, low or high priority class).

distributing transmitter power to the connection in accordance with the determined power control parameter (see col.10 lines 15-32).

Regarding claim 2, Laakso discloses determining step is based on a predefined relationship between the connection-specific information and the degree of priority (see col.14 lines 20-44, different power step sizes distribution for different priority class).

Regarding claim 3, Laakso discloses the connection-specific information comprises information selected from the group of: mobile type, mobile class (see col.10 lines 24-26, "real-time" and "non-real-time" traffic corresponds "mobile class"), subscription class, and connection time.

Regarding claim 4, Laakso discloses comprising the steps of: automatically classifying the mobile terminal at the network side based on connection-related information (see col.1 lines 33-36, the network to classify the users connection based on subscriber registration speech data or packet data); and using the mobile class from the classifying step in the determining step (see col.10 lines 15-34).

Regarding claim 5, Laakso discloses the step of measuring the connection-related information at the network side (see col.8 lines 55-60).

Regarding claim 7, Laakso discloses the communication system is packet-based (see col.4 lines 1-2, "data packets" corresponds to "packet based) and the connection-specific

information comprises information selected from the group of: transmitted data amount, data amount in buffer, packet length, packet type (see col.4 lines 1-7, "data packets in non-real time is also referred to as controllable user traffic" corresponds to "packet type"), time since last packet, block error statistics, and block retransmission statistics.

Regarding claim 8, Laakso discloses the determining step is performed at a network-based control unit and further comprising the step of transmitting control information comprising the power control parameter for the connection from the network-based control unit to the transceiver node (see col.3 lines 47-57 and col.10 lines 11-15).

Regarding claim 9, Laakso discloses the step of receiving, at the transceiver node, the connection-specific information from the network-based control unit, and wherein the determining step is performed at the transceiver node (see col.3 lines 47-57 and col.10 lines 11-15).

Regarding claim 10, Laakso discloses the power control parameter is directly or indirectly related to a maximum value of the connection-specific transmitter power (see col.17 lines 35-40).

Regarding claim 11, Laakso discloses the power control parameter is directly or indirectly related to a power change rate of the connection-specific transmitter power (see col.10 lines 25-26, "lower bit rates" of real-time user is directly related power change rate).

Regarding claim 12, Laakso discloses the power control parameter comprises a power change step size (see col.14 lines 36-46, 0.5dB or 1dB is power change step size).

Regarding claim 13, Laakso discloses the power control parameter comprises a quality target parameter (see col.13 lines 41-45, "Eb/No targets of non-real time user" corresponds to "a quality target parameter").

Regarding claim 14, Laakso discloses the determining step involves executing a predetermined power distribution function selected from the group of: a step function (see col.14 lines 35-37, "0.5dB" corresponds to "a step function"), a stepwise function (see col.14 lines 39-41, "1 dB" corresponds to "a stepwise function"), and an at least partially continuous function.

Regarding claim 15, Laakso discloses the further steps of combining at least two power control parameters based on different input parameters into an aggregate power control parameter (see col.7 line lines 40-65, Laakso teaches total transmission power based on at least two power control parameters such as power transmission for real-time connection and non-real time connection); and using the aggregate power control parameter for distributing the power in the distributing step (see col.10 lines 15-32).

Regarding claim 16, Laakso discloses the determining step is further based on a current total transmitter power of the transceiver node (see col.9 lines 49-51, col.19 lines 15-16).

Regarding claim 17, Laakso discloses determining step is further based on a current connection-specific transmitter power for the connection (see col.10 lines 31-32 "re-negotiate real-time service" is considered as "a current connection-specific").

Regarding claim 18, Laakso discloses a transceiver node (see col.3 lines 44-45) capable of communicating with multiple mobile terminals (see col.3 lines 37-38) and including means for power control, comprising means for receiving a transmitter power change request

from one of the mobile terminals over a wireless connection (see col.2 lines 24-25, Laakso teaches uplink TPC command is a request power change at the base station); and means for distributing transmitter power to the connection in accordance with a power control parameter for the connection (see col.10 lines 16-34, "non-real time users", "real-time users" corresponds to "power control parameter for the connection"), said power control parameter being based on connection-specific prioritization information (see col.14 lines 26-43).

Regarding claim 19, Laakso discloses means for receiving control information comprising the power control parameter for the connection from the network-based control unit (see col.3 lines 46-55 and col.10 lines 11-15).

Regarding claim 20, Laakso discloses means for determining the power control parameter for the connection based on connection-specific information indicating the degree of priority associated with the connection (see col.14 lines 20-43).

Regarding claim 21, Laakso discloses means for receiving the connection-specific information from a network-based control unit (see col.3 lines 46-55 and col.10 lines 11-15).

Regarding claim 22, Laakso discloses the connection-specific information comprises information selected from the group of: mobile type, mobile class (see col.10 lines 24-26, "real-time" and "non-real-time" traffic corresponds "mobile class"), subscription class, and connection time.

Regarding claim 23, Laakso discloses the connection-specific information comprises a mobile class of the mobile terminal (see col.10 lines 15-33, "real-time user" corresponds to "mobile class"), automatically decided at the network side based on connection-related information (see col.10 lines 11-15).

Regarding claim 24, Laakso discloses the communication system is packet-based (see col.4 lines 1-2, "data packets" corresponds to "packet based) and the connection-specific information comprises information selected from the group of: transmitted data amount, data amount in buffer, packet length, packet type (see col.4 lines 1-7, "data packets in non-real time is also referred to as controllable user traffic" corresponds to "packet type"), time since last packet, block error statistics, and block retransmission statistics.

Regarding claim 25, Laakso discloses the power control parameter is directly or indirectly related to a parameter selected from the group of: a maximum value of the connection-specific transmitter power, a power change step size (see col.14 lines 35-40, 0.5dB and 1dB is a power change step size), and a quality target parameter.

Regarding claim 26, Laakso discloses the power control parameter is determined based also on a current total transmitter power of the transceiver node (see col.9 lines 49-51, col.19 lines 15-16).

Regarding claim 27, Laakso discloses a network-based control unit (col.3 lines 31-55) connected to a transceiver node capable of communicating with multiple mobile terminals over respective wireless connections and including means for power control, comprising:

means for receiving, from the transceiver node (see col.3 lines 44-45), an indication of a transmitter power change request from one of the mobile terminals (see col.2 lines 24-25, Laakso teaches uplink TPC command is a request power change at the base station);

means for determining a power control parameter for the connection of the mobile terminal based on connection-specific information (see col.10 lines 16-34, "non-real time users", "real-time users" corresponds to "power control parameter for the connection")

indicating the degree of priority associated with the connection (see col.14 lines 2-43); and means for communicating the power control parameter to the transceiver node for power distribution purposes (see col.13 line 64 through col.14 line 20).

Regarding claim 28, Laakso discloses the connection-specific information comprises information selected from the group of: mobile type, mobile class (see col.10 lines 24-26, "real-time" and "non-real-time" traffic corresponds "mobile class"), subscription class, and connection time.

Regarding claim 29, Laakso discloses means for measuring connection-related information (see col.8 lines 55-60); and means for automatically classifying the mobile terminal based on the connection-related information (see col.1 lines 33-36, the network to classify the users connection based on subscriber registration speech data or packet data).

Regarding claim 31, Laakso discloses the communication system is packet-based (see col.4 lines 1-2, "data packets" corresponds to "packet based) and the connection-specific information comprises information selected from the group of: transmitted data amount, data amount in buffer, packet length, packet type (see col.4 lines 1-7, "data packets in non-real time is also referred to as controllable user traffic" corresponds to "packet type"), time since last packet, block error statistics, and block retransmission statistics.

Regarding claim 32, Laakso discloses the power control parameter is directly or indirectly related to a parameter selected from the group of: a maximum value of the connection-specific transmitter power, a power change step size (see col.14 lines 36-46, 0.5dB or 1dB is power change step size), and a quality target parameter.

Regarding claim 33, Laakso discloses the determining step is further based on a current total transmitter power of the transceiver node (see col.9 lines 49-51, col.19 lines 15-16).

Regarding claim 34, Laakso discloses a communication system (col.3 lines 31-42) connected to a transceiver node capable of communicating with multiple mobile terminals over respective wireless connections and including means for power control, comprising:

means for receiving, from the transceiver node (see col.3 lines 44-45), an indication of a transmitter power change request from one of the mobile terminals (see col.2 lines 24-25, Laakso teaches uplink TPC command is a request power change at the base station);

means for determining a power control parameter for the connection of the mobile terminal based on connection-specific information (see col.10 lines 16-34, "non-real time users", "real-time users" corresponds to "power control parameter for the connection") indicating the degree of priority associated with the connection (see col.14 lines 15-20); and means for communicating the power control parameter to the transceiver node for power distribution purposes (see col.14 lines 20-43).

Regarding claim 35, Laakso discloses comprising the steps of: means for automatically classifying the mobile terminal at the network side based on connection-related information (see col.1 lines 33-36, the network to classify the users connection based on subscriber registration speech data or packet data); and means for using the mobile class from the classifying step in the determining step (see col.10 lines 15-34).

Regarding claim 36, Laakso discloses means for determining the power control parameter based also on a current total transmitter power of the transceiver node (see col.9 lines 49-51, col.19 lines 15-16).

Regarding claim 37, Laakso discloses being selected from the group of: a Code Division Multiple Access (CDMA) system, a Wideband Code Division Multiple Access (WCDMA) system (see col.10 lines 6-7), an Orthogonal Frequency Division Multiplexing (OFDM) system, and a system using Multi Carrier Power Amplifiers (MCPA).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6 and 30, are rejected under 35 U.S.C. 103(a) as being obvious over Laakso (US Patent 6,671,512) in view of Choi et al. (US Patent 6,757,537).

Regarding claim 6, Laakso discloses the step of collecting, at the network side, the connection-related information (see col.4 line 19 through col.9 line 34); however, Laakso fails to disclose collecting the connection-related information from a data holding unit.

In the related art, a power control parameter corresponding to a called type information provided from a base station, Choi et al. disclose the connection-related information from a data holding unit (see col.2 lines 44-51). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Laakso with the above teaching of Choi et al. in order to provide the base station reads a power control parameter value corresponding to the selected call type from the memory and provides the

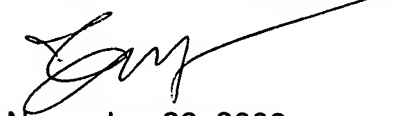
read power control parameter value to the mobile station to perform out loop power control, so that to maintain equivalent or greater call quality for calls between mobile stations.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed Tu Nguyen whose telephone number is 571-272-7883.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



November 26, 2006